

# PATENT SPECIFICATION

325,218



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Complete Left : July 31, 1929.

Complete Accepted : Feb. 12, 1930.

## PROVISIONAL SPECIFICATION.

### Improvements in Advertising and Displaying Devices.

We, **HOLOPHANE LIMITED**, of Holophane House, Elverton Street, Vincent Square, London, S.W. 1, England, a company organised and existing under the laws of Great Britain and Ireland, **ROLLO GILLESPIE WILLIAMS**, of 60, Elgar Avenue, Surbiton, Surrey, England, and **GEORGE JAMES SAMMS-HUDSON**, of 41, Windermere Avenue, Church End, Finchley, London, N. 3, England, both of British nationality, do hereby declare the nature of this invention to be as follows:—

This invention relates to advertising and displaying devices of the kind used to produce a changing colour effect on an outdoor or indoor poster or sign or on a shop window display for example.

Briefly stated the invention comprises a light projector, which may be concealed within another decorative or useful article such as a box, stand, dummy figure or the like, the essential features of the projector consisting of a mask with an aperture or apertures therein and a colour screen having inclined bands of different colours arranged upon it, either the mask or the colour screen being rotated so that light of continuously changing colour is thrown by the projector on to the poster or other display, thus producing a highly attractive effect. It is of course not broadly new to use a colour screen comprising inclined bands on rotating tubular members.

In carrying the invention into effect, advantageously the mask is stationary and the colour screen is in the form of a cylinder which rotates preferably outside the mask. The rotation may be effected by the known device of bent blades which are set in motion by the rising currents of hot air produced by the light source which may be an electric incandescent lamp. Alternatively a clockwork or electric motor may be used. The light may be passed through a sheet of prismatic glass designed to distribute it in the desired direction; and a light diffusing medium may also be interposed in the beam or combined with the colour screen or the prismatic glass where the latter is used.

In one preferred embodiment of the invention the projector may be housed within and concealed by a stand or the like suitable for use in shop window dressing, but it will be understood that the projector may be housed in any other way and in some cases, for example for outdoor signs and posters, need not be concealed.

The projector is advantageously contained within a sheet metal casing open at the top and spaced above a shelf in the stand by bolts and steadied by screws at the top. A lamp holder for an electric incandescent lamp is mounted on the shelf while the bottom of the casing conveniently carries a circular seating into which fits a combined mask and reflector. The latter may consist of a cylinder of suitable material, say finished bright on the inside so that it reflects light, with an elongated vertical opening. At the top cross members carry a short central axial rod in which a pointed pivot is secured as by a screw.

The colour screen conveniently comprises top and bottom rings joined by inclined bands of transparent or translucent coloured material such as non-inflammable celluloid. Advantageously three bands of the colours red, green and blue respectively, are used. They are secured to the rings for example by rivets or paper fasteners or by adhesive. A plate is secured to the top ring, having at its centre a bearing adapted to rest on the above mentioned pointed pivot and also having bent up blades formed in it by which the screen is rotated by the currents of hot air rising from the lamp.

To facilitate ventilation and the flow of air, the shelf and the bottom of the sheet metal casing may be perforated and the blade plate may also have perforations made in it. Suitable air exits, which may take the form of ornamental openings, are formed in the stand or the like, the top of which may be easily detachable and provided with an asbestos lining to protect it from the heat.

At one side of the stand or like device an opening is provided for the passage of light, the mask being set so that its open-

- ing faces this way, while the above mentioned sheet metal casing is also open on this side. Guides may be provided on the casing, or on the inside of the stand, 5 to receive a sheet of prismatic glass for distributing the light. A light diffusing medium may be used in addition to or instead of the prismatic glass or they may be combined.
- 10 It will be readily understood that in action the colour screen rotates and in consequence a beam of coloured light which gradually changes upwardly or downwardly according to the direction of rotation and inclination of the colour 15 screen bands will be projected. Such a beam when thrown on to a coloured poster or other display will give a continuously changing and highly attractive effect.
- Dated this 12th day of November, 1928.  
SEFTON-JONES, O'DELL &  
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285, High Holborn, London, W.C. 1,  
Agents for the Applicants.

## COMPLETE SPECIFICATION.

## Improvements in Advertising and Displaying Devices.

- 20 We, HOLOPHANE LIMITED, of Holophane House, Elverton Street, Vincent Square, London, S.W. 1, England, a company organised and existing under the laws of Great Britain and Ireland, ROLLO 25 GILLESPIE WILLIAMS, of 60, Elgar Avenue, Surbiton, Surrey, England, and GEORGE JAMES SAMMS-HUDSON, of 41, Windermere Avenue, Church End, Finchley, London, N. 3, England, both of British nationality, do hereby declare the nature of this invention and in what 30 manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—
- 35 This invention relates to a coloured light projector for use in lighting up and displaying at a distance a poster or other device or article in such a manner as to produce a changing colour effect on said 40 poster whether outdoor or indoor, or for example on a shop window display.
- An illuminated apparatus for displaying an object has been suggested comprising a stage-like chamber open at its front, a 45 compartment in said chamber, hidden from external observation and provided at its rear with an opening, a reflecting drum-like structure supported in position in said compartment with its axis at an angle to the normal, a lamp projecting 50 into said reflecting structure, and a rotary drum adapted to produce alternate lighting effects such as changes of colour surrounding said structure.
- 55 Briefly stated the invention relates to a coloured light projector for use in lighting up and displaying at a distance a poster or other device or article comprising a coloured screen in the form of a 60 vertical cylinder rotated by convection currents supported upon and rotating outside a stationary vertical reflecting mask entirely enclosing the light source with an aperture or apertures therein said projector being characterised by the arrange- 65 ment of different colours on the cylinder in the form of inclined bands and being adapted to project on to the poster or the like at intervals one of the colours of the cylinder and at intervals to blend two of 70 the colours in varying shades.
- It should be understood that if desired two or more projectors may be coupled together by any suitable gearing and the colour effects obtained therefrom syn- 75 chronised.
- In carrying the invention into effect the rotation of the cylindrical colour screen is effected by the known device of bent blades which are set in motion by the rising currents of hot air produced by the 80 light source which may be an electric incandescent lamp. The light may be passed through a sheet of prismatic glass designed to distribute it in the desired 85 direction; and a light diffusing medium may also be interposed in the beam or combined with a colour screen or the prismatic glass where the latter is used.
- The invention is illustrated in the 90 accompanying drawings, in which
- Figure 1 is a sectional view of the complete projector.
- Figure 2 is a perspective view of the 95 colour screen and
- Figure 3 is a perspective view of the mask.
- In the example illustrated, the projector is housed within and concealed by a stand 1 suitable for use in shop window dress- 100 ing, but it will be understood that the projector may be housed in any other way and in some cases, for example for outdoor signs and posters, need not be concealed.
- 105 The projector is contained within a sheet metal casing 2 open at the top and supported on a shelf 3 by bolts 4 and steadied by screws 7. A lamp holder 5

for an electric incandescent lamp 6 is mounted on the shelf 3, while the bottom of the casing 2 carries a circular seating 8 into which fits a combined mask and reflector 9. The latter consists of a sheet metal cylinder, finished bright on the inside so that it reflects light, with an elongated vertical opening 10. At the top cross members 11 carry a central rod 12 in which a pointed pivot 13 is secured by a screw 14.

The colour screen comprises top and bottom rings 15, 16, respectively joined by inclined bands 17 of transparent or translucent coloured material such as non inflammable celluloid. Advantageously three bands of the colours, red, green and blue, are used. They are secured to the rings for example by rivets or paper fasteners 18. A plate 19 is secured to the top ring 15, having at its centre a bearing plate 20 adapted to rest on the pivot 13 and also having bent up blades 21 formed in it by which the screen is rotated by the currents of hot air rising from the lamp 6.

To facilitate ventilation and the flow of air, the shelf 3 and the bottom of the casing 2 are perforated and the plate 19 may also have perforations 22 made in it. Suitable air exits, which may take the form of ornamental openings, are formed in the stand 1, the top of which is easily detachable and provided with an asbestos lining 23 to protect it from the heat.

At one side an opening 24 is provided for the passage of light the mask 9 being set so that its opening 10 faces this way, while the casing 2 is also open on this side. Guides 25 may be provided on the casing as shown, or alternatively on the inside of the stand, to receive a sheet of prismatic glass 26 for distributing the light. A light diffusing medium may be used in addition to or instead of the prismatic glass or they may be combined.

It will be readily understood that in action the colour screen rotates and in consequence a beam of coloured light

which gradually changes upwardly or downwardly according to the direction of rotation and inclination of the bands 17 will be projected. Such a beam when thrown on to a coloured poster or other display will give a continuously changing and highly attractive effect.

Finally it would be understood that the present invention relates to a light projector which is not necessarily visible to the observer of the poster or other device or object being illuminated by the projector and can therefore be distinguished from those suggested illuminated signs which propose to obtain their changing light effects from the use of colour striped cylinders rotating within reflectors or other masks.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A coloured light projector for use in lighting up and displaying at a distance a poster or other device or article comprising a coloured screen in the form of a vertical cylinder rotated by convection currents having inclined bands of different colours thereon supported upon and rotating outside a stationary vertical reflecting mask entirely enclosing the light source with an aperture or apertures therein adapted to project on to the poster or the like at intervals one of the colours of the screen and at intervals to blend two of the colours in varying shades.

2. A projector according to claim 1, in which prismatic glass is used to distribute the projected beam in the desired direction.

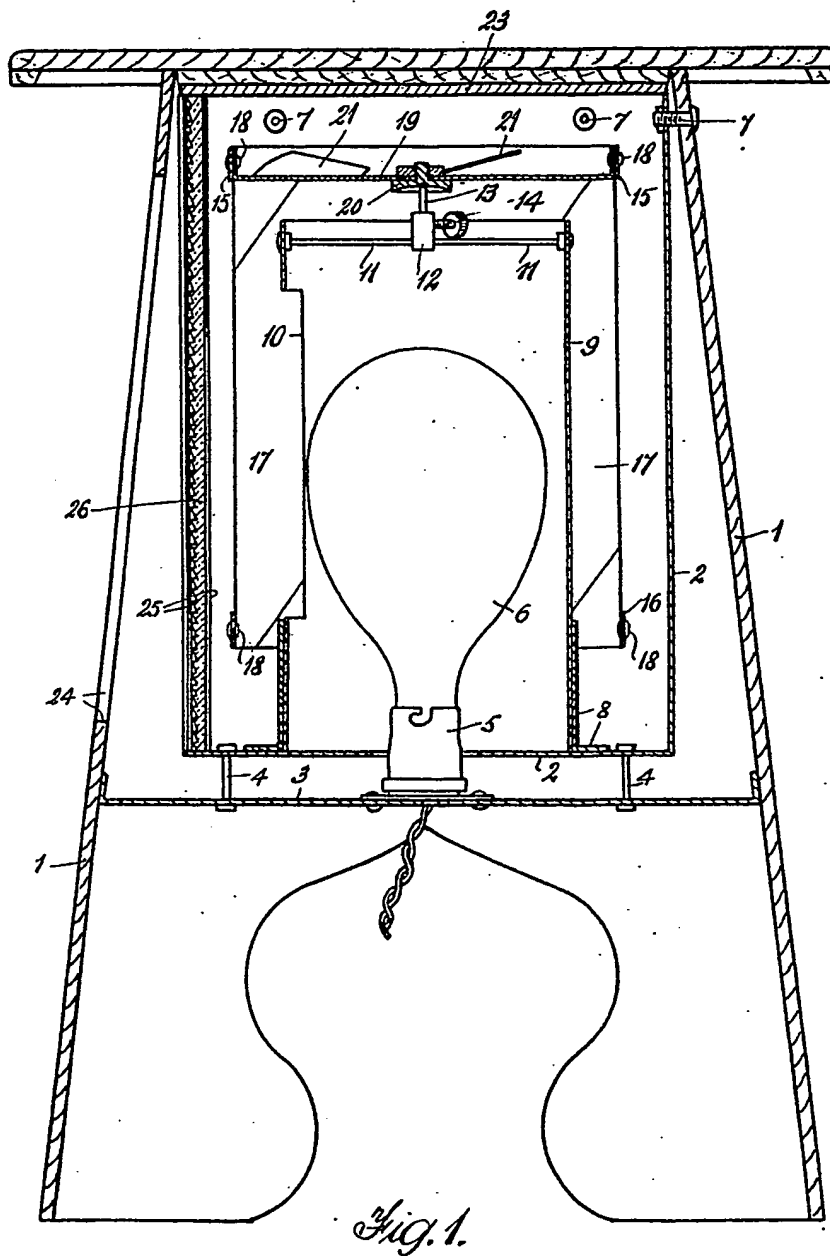
3. A light projector substantially as described or illustrated.

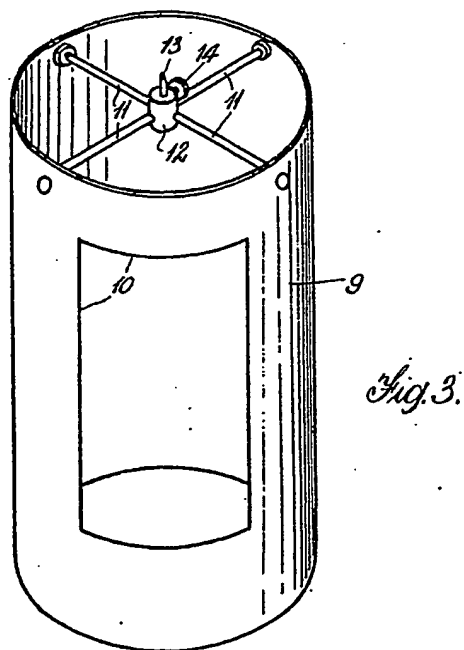
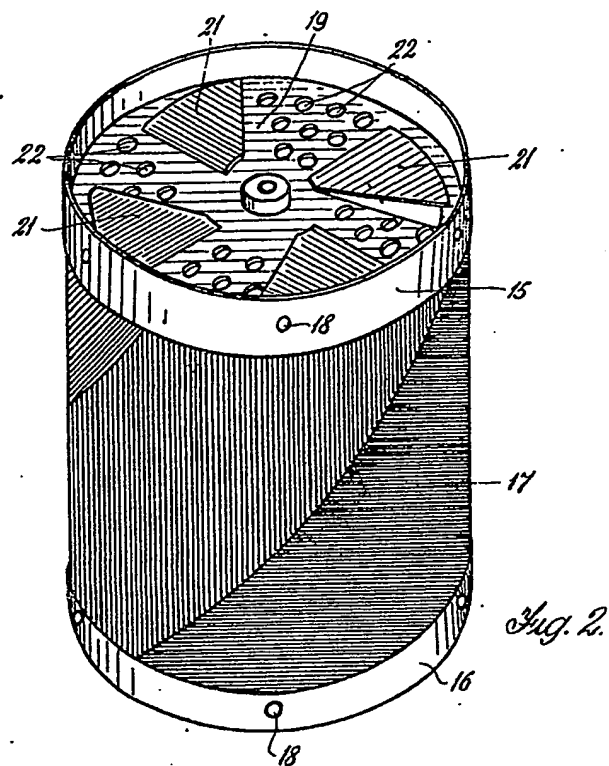
Dated this 31st day of July, 1929.

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*[This Drawing is a reproduction of the Original on a reduced scale.]*





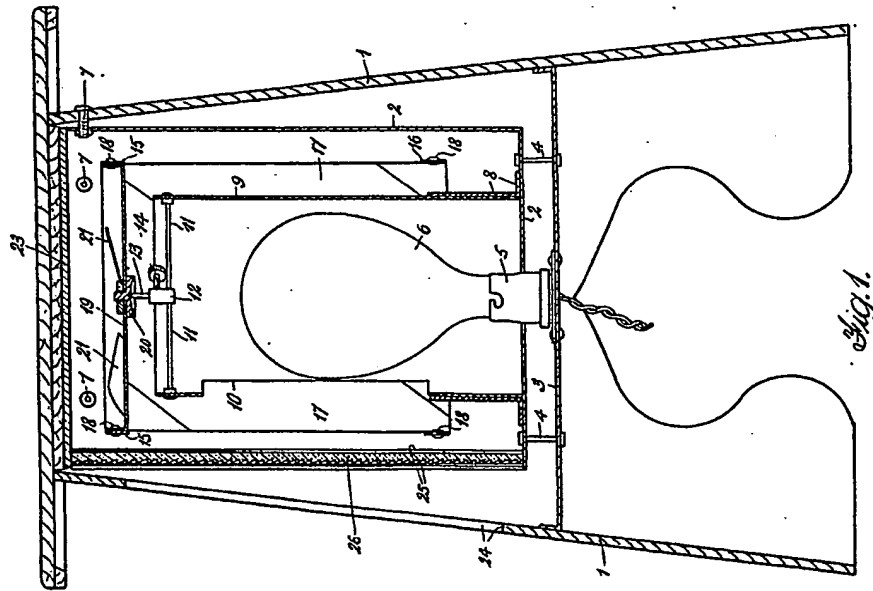


Fig. 1.

[This Drawing is a reproduction of the Original on a reduced scale]

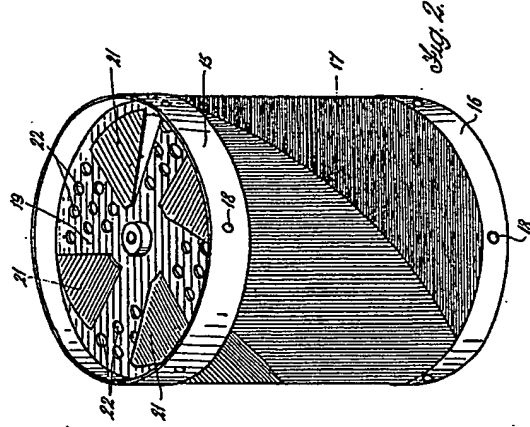


Fig. 2.

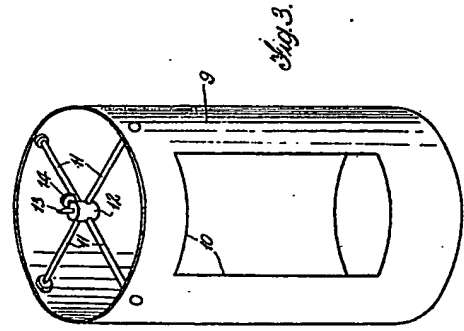


Fig. 3.